

Summary

To: Mayor and Commissioners
From: Perry Lopez, Public Works Director
Subject: Traffic Calming Policy
Date: 7/17/2012

Summary: Due to recent concerns from the Commission as well as residents about traffic calming, staff has engaged the team of Deuel and Assoc. and DKS to begin the process of establishing a Town policy for traffic calming. The purpose of this policy is to establish guide lines that will help staff determine when a traffic calming study is justified.

Previous Board Action: At last month's Infrastructure Board meeting the commission directed staff to work with the infrastructure board to come up with a simpler more streamline policy.

Background/Problem Discussion: According to citizens' complaints, there is excessive traffic and speeding on several town streets. The Commission also feels the same problem exists on Indian Rocks Rd.

Alternatives/Options: NA

Financial Implications: None

Recommendation: Staff recommends the Commission approve the revised traffic calming policy as drafted by the infrastructure board.

Proposed Motion: Move to approve the revised traffic calming policy as drafted by the infrastructure board.

Town of Belleair

Neighborhood Traffic Calming Policy

EXECUTIVE SUMMARY

Traffic calming involves changes in street alignment, installation of barriers and other physical measures to reduce traffic speeds and/or cut through volumes, in the interest of street safety, livability and other public purposes. It is a methodology to influence the behavior of motorists and prevent (or at a minimum, discourage) undesirable driving practices. Techniques may include education, enforcement, or engineering to shift traffic patterns and/or reduce speeds. Most traffic calming measures focus on engineering modifications to reduce vehicle speeds; reduce traffic volumes; discourage cut-through traffic on local streets; minimize conflicts between street users; and improve neighborhood quality of life for residents, bicyclists and pedestrians. Education and enforcement efforts are considered prior to engineering alternatives and also as a complement to engineering efforts.

A potential traffic calming issue, that included children at play on a now busy street, was brought to the Town of Belleair Infrastructure Committee. Upon subsequent discussion with the Town's Staff, it was learned that no traffic policy was in place to aid decision making and provide consistent standards for same. Also, a presentation by traffic calming experts convinced the Infrastructure Committee that the Town should have standards, and the Town should be viewed as an entity because a solution on one street could cause problems on another street(s). Due to the vast variety of solutions both Physical and Non-Physical, it was felt that expert recommendations were needed.

Speed, traffic volumes and collision data are the primary criteria used to gauge whether a traffic calming area warrant research for possible development and implementation of a traffic calming plan. If the traffic calming area of concern meets the minimum criteria outlined in Summary Traffic Calming Policy and Procedures, Town staff will schedule a neighborhood workshop meeting with residents in the affected area to review the results and to receive comments on a preliminary design. Resident participation is the essential ingredient in the development and implementation. Residents will offer insight into the nature and extent of traffic and safety problems and will live day to day with any devices that may be constructed. Residents are most directly affected by the issues and potential mitigating measures, and they are frequently the source of innovative solutions coupled with expert advice.

TRAFFIC CALMING POLICY AND PROCEDURES

Policy

- The Town of Belleair is committed to the protection and safety of its citizens.
- A topical major concern is related to automobile traffic issues. The citizens of Belleair are sometimes faced with serious problems in their residential areas, such as speeding, a noticeable increase in through traffic by drivers finding a new shortcut, and lack of common civility.

- Essential to solving these perceived problems is the participation of residents, Town Staff and Town Commission.
- Therefore, The Town of Belleair does hereby establish these procedures to address and ease automobile traffic problems.

Identification and Approval

- The identification of a problem can originate from three sources.
 1. Residents—A petition of 60% of residents in the area affected
 2. Town Staff—Identification of a problem
 3. Mayor and Board of Commissioners--Identification of a problem
- The investigation and analysis of the problem is assigned to Town of Belleair Staff, under these guidelines:
 1. Staff initially determines whether problem is of imminent safety concern.
 - a. If safety is an imminent concern, staff identifies potential solution and seeks approval from Infrastructure Board (IB) and Town of Belleair Commission (TBC).
 - b. If safety is not an imminent concern, Staff investigates and initiates process to determine potential solutions and then presents recommendation to the IB and TBC for approval.
 2. When problem is a direct response to a citizen petition, the residents from the area affected shall approve the Staff recommendation by no less than 65% before Staff submission to the IB and TBC.

Procedures

- The Town of Belleair Staff shall revise recommendations presented in the staff document entitled "Traffic Calming Drivers", the DKS study of May 21, 2012 and the article from the ITE Journal of November 2005 entitled "Traffic Calming Practice Revisited" to establish procedures that best reflect the particular needs of the Town of Belleair.

Solutions and Outcomes

- Each implementation of a solution shall be monitored for a period of no less than one (1) year to determine effectiveness. Once the one year period is over, a review of effectiveness shall be scheduled every five (5) years.
- Each perceived problem that has not reached an implementation stage, may be submitted for additional review if the following occurs:
 1. There are traffic problems that have caused further deterioration, and/or
 2. Staff has determined there is need for further review.
 3. The Town Commission has determined that there is need for further review.

TRAFFIC CALMING TOOLBOX

Non-Physical Measures

Non-Physical Measures include engineering measures that do not include physical modifications to the street facility and are typically simple in their implementation. Due to the nature of non-physical measures they can also potentially be low in cost. Non-Physical Measures include the following:

- Speed Enforcement
- Photo Speed Enforcement
- Radar Speed Feedback Sign
- Signage
- Lane Striping
- High Intensity Striping
- Transverse Markings
- Speed Legend
- Recessed Pavement Markers

- High Visibility Crosswalk
- In-Pavement Lighting
- Flashing LED Sign
- Colored Pavements

Non-Physical measures do have both pros and cons associated with them. Below are potential advantages and disadvantages associated with Non-Physical Measures. The listed advantages / disadvantages do not necessarily apply to all measures:

Advantages:

- Do not impact response times of emergency vehicles, especially fire trucks and ambulances
- Movements of transit buses and utility trucks are not hindered
- Relatively inexpensive and short implementation time
- Reduce travel speeds
- Reduce traffic volumes
- Improve motorist / pedestrian visibility
- Enhance identity of residential neighborhoods
- Do not inconvenience local residents

Disadvantages:

- May provide a false sense of security to pedestrians
- Possibly diverts vehicular traffic to other neighborhood streets
- Increased street maintenance costs that can be associated with signing, pavement marking and replacing of damaged measures
- May not be as effective as a Physical Measure

Physical Measures

Physical Measures include physical modifications to the street facility. Due to the forced vertical or horizontal deflection of the driver, it has been shown through research that Physical Measures can be more effective at reducing speed and traffic volumes. However, Physical Measures are more restrictive and could potentially divert traffic and impact access to adjacent properties. Measures under this category are generally higher in costs and have longer implementation times. Physical Measures include the following:

- Textured Pavement
- Speed Cushions
- Speed Tables
- Raised Crosswalks
- Raised Intersections
- Traffic Circles
- Curb Extensions (Chokers)
- Chicanes
- Lateral Shifts
- Curb Bump-Outs (Bulb-Outs, Neckdowns)
- Raised Island Narrowings
- Medians
- Half-Street Closures
- Full-Street Closures

It should be noted that Physical Measures have both pros and (more importantly) potential drawbacks associated with them. Below are potential advantages and disadvantages associated with Physical Measures. The listed advantages / disadvantages do not necessarily apply to all measures:

Advantages:

- Permanent solution with a one-time capital expenditure
- Reduce travel speeds
- Reduce traffic volumes
- Reduce pedestrian crossing distance
- Improve motorist / pedestrian visibility
- Reduce “drag strip” perception of a straight street
- Enhance identity of residential neighborhoods
- Add space for pedestrians, landscaping and other decorative features
- Potentially able to place traffic signs closer to driver’s cone of vision
- Reduce number and severity of collisions
- Reduce need for police enforcement
- Discourage commercial trucks from cutting through residential neighborhoods

Disadvantages:

- Vertical features and sharp curves have negative impacts on response times of emergency vehicles, especially fire trucks and ambulances
- Hinders movement of transit buses and utility trucks
- May reduce vehicle or pedestrian visibility
- May provide a false sense of security to pedestrians
- Inconveniences local residents
- Possibly diverts vehicular traffic to other neighborhood streets
- May increase risk to bicyclists, roller skaters and physically challenged pedestrians
- Increases traffic noise at the measures due to vehicles braking and driving over or around the physical features
- Loss of curbside parking spaces adjacent to the measures
- May require modifications to surface drainage and other utilities
- Some measures, such as speed cushions, can cause negative visual aesthetics
- Expensive design and construction costs
- Increased street maintenance costs that can be associated with landscaping, signing, pavement marking and replacing of damaged measures

Toolbox Overview

The following pages describe and illustrate each of the traffic calming measures included within the Town of Belleair Neighborhood Traffic Calming Policy Toolbox. There is not a single tool to solve all traffic problems, and one tool that may work well in one area for a particular problem may not be effective in another situation. The key to successful traffic calming is both community acceptance and municipal/maintenance support.

The traffic calming measures included within the toolbox are divided into three categories:

- **Non-Physical Measures:** Measures that do not alter the path of the vehicle.
- **Physical – Vertical Measures:** Measures provide a variation in pavement height and materials that typically cause discomfort to occupants of vehicles traveling at speeds higher than the desired travel speed.
- **Physical – Horizontal Measures:** Measures minimize straight-line travel or reduce pavement widths, thus forcing drivers to turn and/or reduce speeds.

In addition to describing the tools, a list of general pros and cons associated with each tool is also presented. The intent is to provide a quick synopsis of what might be expected if these measures were to be implemented. Again, certain measures in certain situations may or may not realize their full advantages or disadvantages depending on site-specific conditions and circumstances. Also included for each measure is a rough or relative cost. The cost can vary significantly depending upon the materials used, design requirements, etc. The costs presented include initial implementation costs only and do not include maintenance costs of the measure after implementation. It is recommended that additional cost research be conducted prior to implementation to confirm and customize costs prior to finalizing any traffic calming plan.